Portables-Pro 2
User Manual

Portables-Pro 2

Quick and simple in-field gas test and calibration solution

Click here for navigation instructions

Click here for functions list

Click here for full contents list

BE SAFE POSITIVE
+ve Safety™

M070040
Issue 1 Sep 2015

CROWCON
Detecting Gas Saving Lives

Contents

Functions

NAVIGATION INSTRUCTIONS

The symbols in the left-hand margin of each page of the manual will enable you to carry out the following functions:

The buttons below do not function. They are for illustrative purposes only.

Contents Click on this button to display the Contents page.

Click on this button to display the previous page.

Click on this button to display the next page.

Click on this button to display the previous view (use it to return from a reference jump).

Click on this button to display next view (use it to return to a reference jump).

Click this button to print some or all of the document (specific pages can be chosen).

Exit Click this button to exit the user guide.

Press the Esc key to display normal Acrobat© Controls.

CROWCON

Contents

FUNCTIONS

Set-up

Quick Start Guide

User Interface

Software Settings

Appendices

CROWCON

Functions

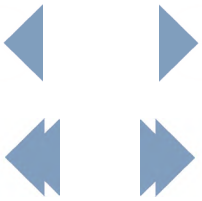
CONTENTS

Prologue 6
General 6
1. Set-up 7
1.1 System requirements 7
1.2 Software installation 7
2. Quick Start Guide 8
2.1 Starting the Software 8
2.1.1 Registering Portables-Pro 2 8
2.1.2 Creating a Setup 8
2.1.3 Connecting to a Device 9
3. User Interface 10
3.1 Introduction 10
3.1.1 The Menubar 10
3.1.2 The Device Menu 11
3.1.3 The View Menu 12
3.1.4 The Tools Menu 12
3.1.5 The Help Menu 13
3.1.6 The Sidebar 13
4. Software Settings 17
4.1 Settings Dialog 17
4.1.1 Application 17
4.1.2 Scanning 18
4.1.3 Localisation 19
4.1.4 Reports 20
4.2 Database Management 21
4.2.1 Settings 21
4.2.2 Setups 21
4.2.3 Reports 21
4.2.4 Logs 21

Exit

CROWCON

4.3 Configuration Pages 22
4.3.1 Summary 22
4.3.2 Configuration 23
4.3.3 Sensors 28
4.3.4 Tools 31
4.3.5 Status 32
4.3.6 Reports 33
4.3.7 Logging 35
5. Servicing 42
Appendix A: Performing a Zero 43
Appendix B: Performing a Bump Test 44
Appendix C: Performing a Calibration 45
Appendix D: Replacing Sensors 46
Appendix E: Fleet Management 47
Software license agreement 48
1. GRANT OF LICENSE. 48
2. DESCRIPTION OF OTHER RIGHTS AND LIMITATIONS. 48
3. TITLE. 49
4. TERMINATION. 49
5. EXPORT CONTROLS. 49
6. MISCELLANEOUS. 49
7. LIMITED WARRANTY. 50
8. LIMITATION OF LIABILITY. 51
Crowcon contacts 52



Prologue

General

Portables-Pro 2 allows full configuration and control of your gas detector, and will provide the following functions:

- Configuration of Devices
- Calibration of Devices
- Information Management

The level of access will depend upon the license issued to the user. There are 2 levels of access available:

- Standard User (no license is required for this access level)
- Service User

This manual contains a description of all the available functions. A user's license level will determine the functions which may be accessed.

1. Set-up

1.1 System requirements

The following are the minimum and recommended system requirements that will enable Portables-Pro 2 to run:

	Minimum	*Recommended*
• **Processor**	Single core, 1GHz	Dual/Quad Core, 3Ghz+
• **Memory**	512Mb	2Gb+
• **Hard Drive**	40 Gb+	40 Gb+
• **Monitor resolution**	1024x768	1920x1080
• **Operating system**	Windows XP SP3	Windows 7 or above

1.2 Software installation

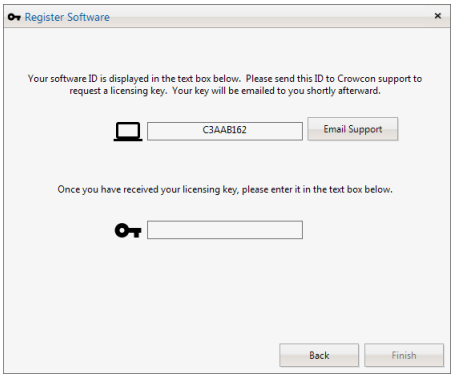
Ensure that all previous versions of Portables-Pro 2 have been uninstalled before proceeding with the installation. Note that Portables-Pro 1 may still be installed along side Portables-Pro 2.

- If you have been supplied with the software in a zip file, first extract the zip file, and then run the Autorun.exe found at this location.
- If you have been supplied with the software on a CD, insert the CD into your PC, navigate to the CD drive and run the Autorun.exe on the CD.
- The autorun application will then start up.
- Select the Install Software option to install **Portables-Pro 2**.
- Follow the on-screen instructions until the software is fully installed.
- If required, also install the USB driver for communicating with Crowcon devices.
- Once the installation is finished, a shortcut will be added to the Start Menu, under **Crowcon**, and another shortcut will be added to your Desktop.

2. Quick Start Guide

2.1 Starting the Software

Double click the Portables-Pro 2 icon on your PC's desktop. If this is the first time you are launching the application, it may take some time for the software to arrange its databases and prepare other items before displaying the main window.


Register Software
Your software ID is displayed in the text box below. Please send this ID to Crowcon support to request a licensing key. Your key will be emailed to you shortly afterward.
C3AAB162
Email Support
Once you have received your licensing key, please enter it in the text box below.
Back
Finish

2.1.1 Registering Portables-Pro 2

If you require a service software license for Portables-Pro 2, you will require the appropriate key to unlock the software.

- Click **Help** and then **Register Software**. You will be presented with the licensing terms.
- Check the box and click **Next**. Your identification key will appear in the first textbox.
- Click the **Email Support** button to automatically generate an email to send to **Crowcon** technical support to request a licensing key. Be sure to inform technical support of your credentials to confirm that you are entitled to use the Servicing version of Portables-Pro 2.
- Once you have received your key back from Crowcon technical support, enter it into the second box on this page. The software will verify that the key is valid.
- Click **Finish**.

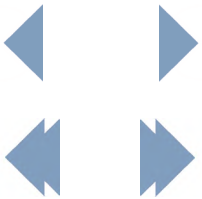
Once the software is restarted, all servicing features will then be accessible.

2.1.2 Creating a Setup

Portables-Pro 2 may be used to create a setup without having a device connected.

- Click **File** and then **New Setup**, then enter a name for your setup. Note that this name must be unique as the software will not allow duplicate names.
- Click **OK**.

You may then proceed to make modifications to this setup.

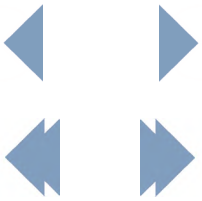


2.1.3 Connecting to a Device

- Connect your T4 to your PC via Crowcon's USB Communications Lead (Part Number CH0103). If this is the first time connecting to the USB Communications Lead, wait for Windows to acknowledge that it has configured the driver.
- Click on the Devices button at the top-left of the main window. The software will then proceed to perform a scan, and then connect to your T4 and bring up the summary page once it is found. The summary page will give you an overview of the configuration of the device.

If the date and time on the device is out of synchronisation with the local PC by more than 15 minutes, the software will prompt to re-synchronise the time.

You may now proceed to configure, zero, bump test, calibrate or retrieve logs from your device.

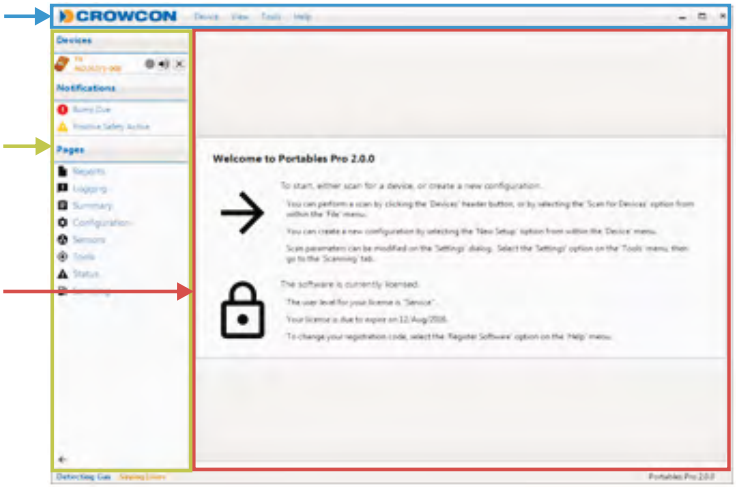


3. User Interface

3.1 Introduction

The software interface is split into three sections:

1. The Menubar, across the top of the main window.
2. The Sidebar, at the left hand side of the main window.
3. The Page area, taking up the remainder of the main window.



The version of the software is always visible in the bottom-right corner of the main window.

3.1.1 The Menubar

The menubar contains several options for changing the behaviour of the software.

Clicking the **Crowcon** logo will bring up the **About** dialog, which contains information on the software copyright, versioning, contact details, and the release notes for the current version.

There is also a menu with several options, as outlined in this section.

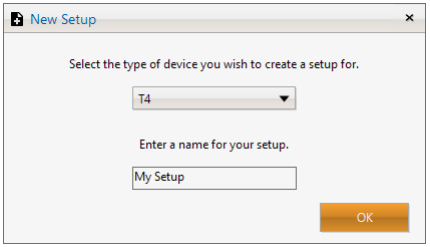
3.1.2 The Device Menu

Note that if connected to a setup rather than a device, this menu will display itself as the File menu. It contains the following options:

3.1.2.1 New Setup

This option will bring up a dialog prompting for which device type you would like to create a setup for, and also a name. Note that the software will not allow you to create a setup with a duplicate name.

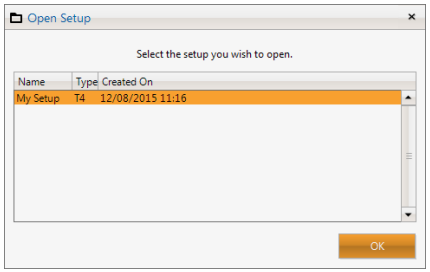
Clicking on **OK** will create your setup within the database and will then open this setup and set it as the active device.



3.1.2.2 Open Setup

This option will bring up a dialog with a list of setups stored in your database.

To open one of these setups, select it from the list and click **OK**. This setup will then be opened and set as the active device.



3.1.2.3 Scan for Devices

This option will start a device scan. Any discovered devices will then be added to the devices section of the sidebar.

3.1.2.4 Disconnect

If there is an active device, selecting this option will disconnect from it and drop the software back to the Home page.

3.1.2.5 Exit

This option will cause the software to close.

3.1.3 The View Menu

This menu contains quick-access options for changing the appearance and behaviour of the software.

These items may be identified as being enabled as they will have their icon highlighted in orange.

3.1.3.1 Disable Transitions

If this option is selected, the software will no longer use slide and fading animations. It will also reduce the rate at which charts scroll. This is useful for improving performance on slower PCs, and those which do not have multicore processors.

3.1.3.2 Collapse Sidebar

Selecting this option will reduce the size of the sidebar. Some information will no longer be visible, and the notifications section will be removed entirely. This is useful for laptop users with smaller displays who wish to maximise the viewing area of the current page.

3.1.3.3 Borderless Mode

Selecting this option whilst the software isn't maximised will reduce the size of the window border.

3.1.4 The Tools Menu

This menu contains several options for managing the behaviour of the software, the database, and diagnostic output.

3.1.4.1 Settings

This option will bring up the Settings dialog. See the *Software Settings* section on *page 17* for more details.

3.1.4.2 Database Management

This option will bring up the Database Management dialog. See the *Software Settings* section on *page 17* for more details.

3.1.4.3 Output Logging

This will bring up the output logging tool, which contains a trace of all actions which have occurred within the software. It is provided for informational purposes only, but may be useful for diagnosing where a problem with an instrument has occurred.

Note that this option is only available for users with a service license.

3.1.5 The Help Menu

This menu contains several options for getting help on use of the application, and updating your license key.

3.1.5.1 Support Website

This option will open up your default web browser on the Crowcon technical support website.

3.1.5.2 Email Support

This option will open up your default email client with an email template to Crowcon technical support.

3.1.5.3 Register Software

This option will bring up the Register Software dialog. See the *Registering Portables-Pro 2* section on *page 8* for more information.

3.1.5.4 About

This option will bring up the About dialog, which contains information on the software copyright, versioning, contact details, and the release notes for the current version.

3.1.6 The Sidebar

3.1.6.1 Devices

The Devices section shows all currently detected devices, and all open setups. Clicking on the **Devices** section will start a scan for devices, which upon detection will appear below the button. Note that when a device is selected the software will check that the time is synchronised with the local PC, and give you the option of re-synchronising if it is out by more than 15 minutes.

Each listed device or setup will show an image of the device, the device type (e.g. “T4”), and the serial number or setup name. A device may be removed from the list by clicking the X button.

The Active Device

It is important to understand the concept of the active device, as although the software will allow connection to as many devices as you like, you may only work with one at a time; the active device.

The active device can be identified as the item with bold and highlighted text, and a colour image. All other devices will have their image greyed out, and non-bold text.

The active device also has some extra features:

- An indication of when the device is communicating.
- A Mute button.
- The X button now serves to Disconnect from the device rather than remove it from the list.

The circle indicator will flash green when communications are in progress, or may flash red if there is a communications problem, for example if the device is prematurely unplugged from the PC.

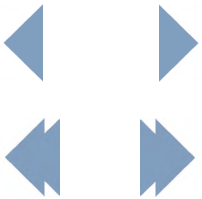
The Mute button will silence all audible alarms from the device, and vice versa if clicked again.

Switching between Devices

In the example to the right, there are two devices listed in the section. The first is the active device, and the second is a loaded setup. Placing the mouse over the second item will change the pointer to a hand, highlight the item, and prompt the user to Connect to this setup. Clicking on this second item will set then it as the active device.

If a device is no longer available, for example because it is no longer connected to the PC, then an error message will be displayed to inform that the device cannot be connected to at this time.

A physical device will have its communication indicator replaced with a USB symbol whilst inactive.



3.1.6.2 Notifications

The Notifications section may contain several messages of varying severity, from Information, to Warning, to Fault.

Notifications are always in relation to the active device, so switching between devices may change the contents of the Notifications section depending upon the state of those devices.

- Calibration Due and Bump Due notifications are denoted with a Fault icon. Clicking on these notifications will change the display to the Status page, or Service page if the user has a service license.
- Positive Safety is denoted with a Warning icon. Clicking on this notification will change the display to the Status page.
- If your software license is due to expire soon, an Information notification will be shown. Clicking this notification will bring up the Register dialog.

Clicking on the Notifications header button will cause all visible notifications to be hidden for the remainder of this session.

3.1.6.3 Pages

The Pages section of the sidebar shows all sections of the software which are currently accessible. Note that without a selected device, some of these options will not appear in the sidebar, for example the Configuration option will only be visible when a device or setup is selected.

Though these pages are listed here, their functions are individually described in a later section of this manual.

Home

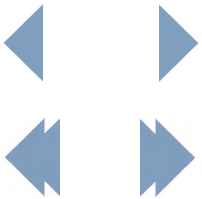
The **Home** page gives information on how to get started with the software, and also informs of the current state of the software license. This includes the license type and license expiry date. This page is selectable by clicking the **Pages** header button.

Reports

The **Reports** page shows a list of all stored reports which may be displayed, and allows filtering of this list based upon various parameters. This page is always accessible, so you don't need to be connected to a device to retrieve bump test and calibration reports.

Logging

The **Logging** page shows a list of all stored device event and data logs, and allows filtering of this list based upon various parameters. The page may also be used to download logs from a device. This page is always accessible, so you don't need to be connected to a device to retrieve data and event logs.



Summary

The **Summary** page gives an overview of the currently selected device, including which sensors are fitted, the alarm levels on these sensors, and the calibration due dates.

Configuration

The **Configuration** page shows all configurable parameters on the selected device, and allows modification of these parameters. The page can also be used to backup and restore configurations for later use.

Sensors

The **Sensors** page shows all configurable sensor parameters on the selected device, and allows modification of these parameters. The page can also be used to backup and restore sensor configurations for later use.

Tools

The **Tools** page shows an active gas level readout from the selected device. The page also contains both the Zero and Bump Test tools.

Status

The **Status** page shows any active status messages from the selected device.

Servicing

The **Servicing** page contains several tools for performing servicing actions on a device. Note that this page is only available to users who have a service license.

4. Software Settings

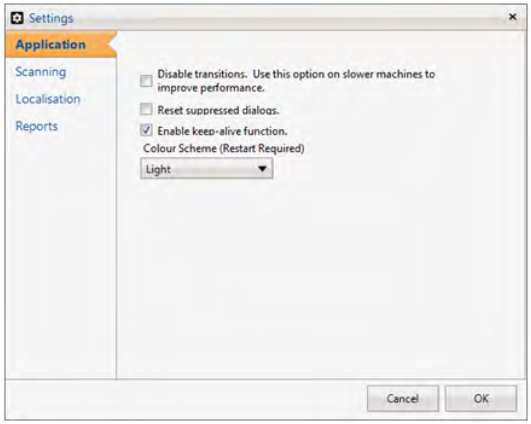
There are various settings that modify the behaviour of the software. These are described in this section.

4.1 Settings Dialog

The settings dialog is accessible from the **Tools** menu.

4.1.1 Application

These options relate to how the application will behave in general.



4.1.1.1 Disable Transitions

This performs the same function as the option from the **View** menu (see *Section 3.1.3* on *page 12*).

4.1.1.2 Reset Suppressed Dialogs

Some dialogs will present the user with a Yes/No question, and allow the user to set the software not to show these dialogs again. Selecting this option will restore these dialogs so they are displayed again.

4.1.1.3 Enable Keep-Alive

This option enables and disables whether the software will occasionally communicate with a device to ensure it is still there. This can be useful if you are likely to need to disconnect and reconnect a single device often.

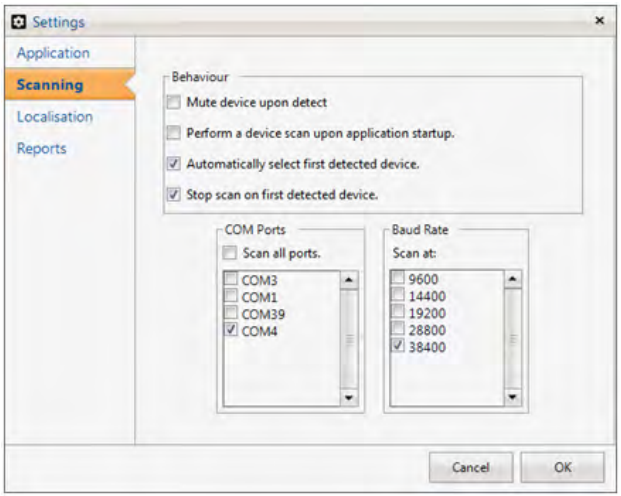
4.1.1.4 Colour Scheme

This option switches the software between Light and Dark mode. Some users express preference for the dark colour scheme to reduce eye strain from reading dark-on-light text on a bright monitor.

Changing this option will not take effect until the software is restarted.

4.1.2 Scanning

These options relate to how the software behaves when performing a device scan.



4.1.2.1 Mute Device upon Detect

Selecting this option will cause the software to immediately set a device to be muted when it is found. This is useful if you are frequently planning on performing calibrations or bump tests.

4.1.2.2 Perform a Scan at Startup

Selecting this option will cause the software to immediately perform a device scan when the software is started up.

4.1.2.3 Automatically Select First Device

Selecting this option will cause the software to select the first device it finds as the active device when performing a scan.

4.1.2.4 Stop Scan on First Device

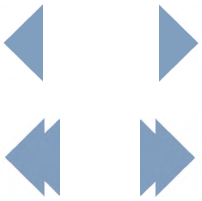
Selecting this option will cause a scan to drop out when a single device has been found.

4.1.2.5 COM Ports

You may either select to Scan all ports, or alternatively select which ports you would like a scan to be performed on. If you know which COM port has been assigned to your USB Communications Lead then the scan will be fastest if only this COM port is selected.

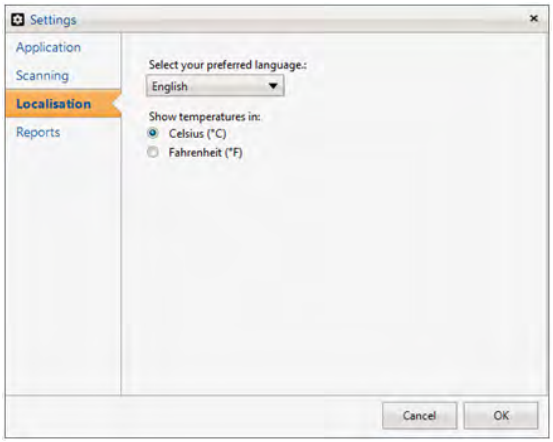
4.1.2.6 Baud Rate

Different Crowcon devices communicate at different baud rates. For T4, ensure that the 38400 option is selected.



4.1.3 Localisation

These options relate to language settings for the software.

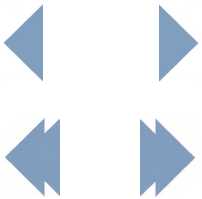


4.1.3.1 Preferred Language

This option contains all detected languages in the software's language folder. Updating this option will cause all text within the software to then use the selected language file. Note that restarting the software is advised after changing this option.

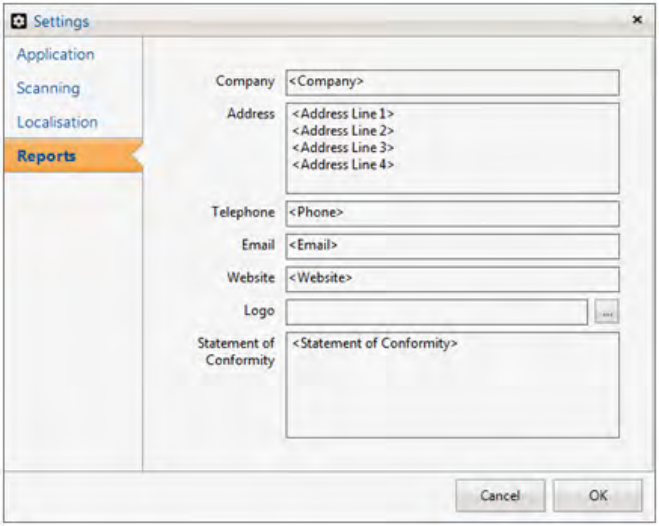
4.1.3.2 Temperature Units

This option will cause all displayed temperatures to be displayed in the selected unit.



4.1.4 Reports

These options relate to custom information that will be displayed on all generated reports.



4.1.4.1 Company Information

There are several fields for your company information. These must all be completed to appear on your reports. You may leave some blank if you wish.

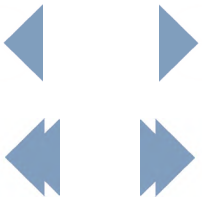
4.1.4.2 Logo

You may select a company logo to appear in the top-right corner of all reports. Acceptable formats are bmp, jpeg and png.

We advise that you use a high-resolution image to achieve the best results.

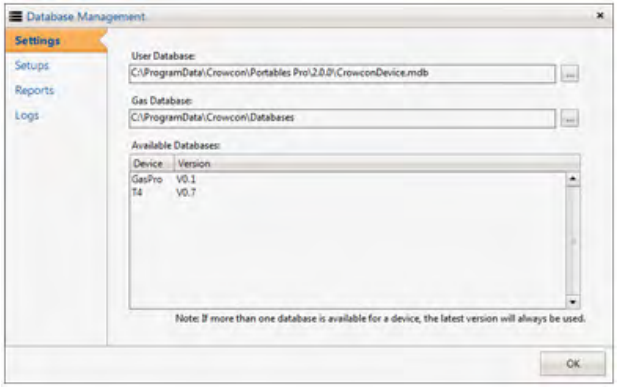
4.1.4.3 Statement of Conformity

You may enter a statement of conformity to appear at the bottom of all bump test and calibration reports.



4.2 Database Management

The database management dialog is accessible from the Tools menu.



4.2.1 Settings

These options relate to the settings for the software's databases. There are both gas databases which contain information for the configuration of sensors, and the user database which contains all your configured setups, generated reports and downloaded logs.

4.2.1.1 User Database

You may select a different user database with this option. It is recommended that you take a backup of your user database from time to time in case of data loss.

4.2.1.2 Gas Database

You may modify the location of where gas databases are loaded from with this option. Note that if you change the location to one missing a database for a specific device, that device may not function correctly with Portables-Pro 2.

All detected databases within the specified folder are listed in the table, along with device type and version.

4.2.2 Setups

This page contains a list of all setups within the user database. You may rename a setup if it is the only one ticked, or delete multiple setups at once. Note that when renaming a setup, press the enter key when complete to confirm the entry, or your changes will be discarded.

4.2.3 Reports

This page contains a list of all reports within the user database. You may delete multiple reports at once.

4.2.4 Logs

This page contains a list of all logs within the user database. You may delete multiple logs at once.

4.3 Configuration Pages

4.3.1 Summary

The summary page shows the serial number and software version of the device, along with an overview of all sensors. Displayed sensor information includes:

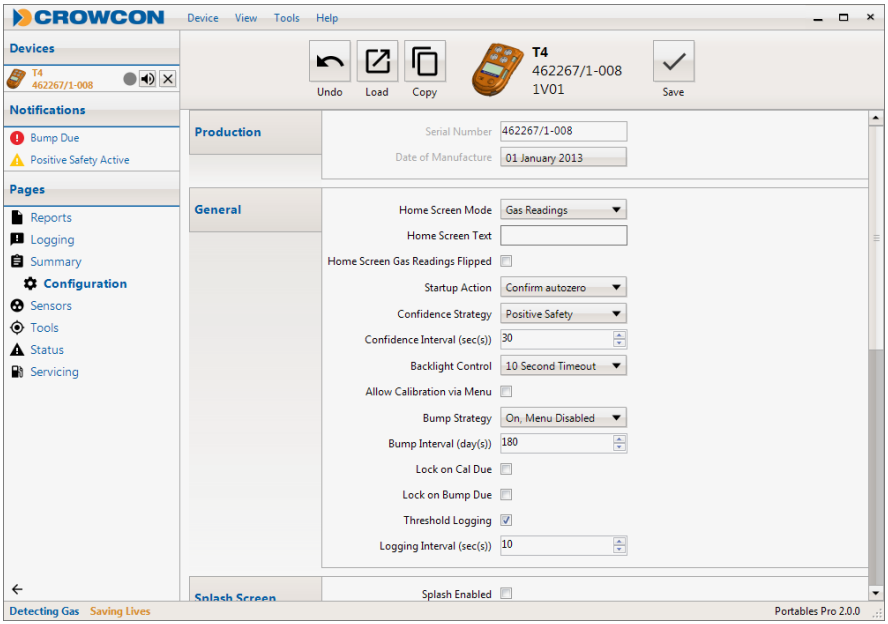
- Sensor type
- The date the sensor was production calibrated (service license only)
- Range of the sensor
- Alarm one level and direction
- Alarm two level and direction
- STEL level
- TWA level
- Calibration Due Date
- Bump Due Date

Calibration and bump due dates will be highlighted in red if they have expired, as in the example image below.

The Refresh button may be clicked at any time to re-retrieve this information from your device.

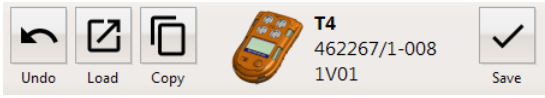
4.3.2 Configuration

The configuration page shows all non-sensor related parameters that may be modified on the device.



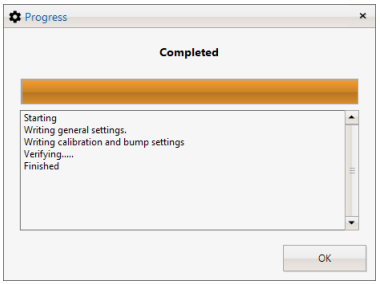
4.3.2.1 Controls

At the top of the screen, the current device's information is displayed, along with the configuration controls, including Undo, Load, Copy and Save options.



Save

When a section is modified in any way, the changed options and the sections header will be highlighted and the **Save** button will become enabled and will start flashing. Clicking the **Save** button will then bring up the Progress dialog which will report back on the outcome of the save operation. Click **OK** to dismiss this dialog when it is finished.



Undo

When changes have been made to a configuration and changed options have been highlighted, you may force the software to revert these changes by clicking the **Undo** button. The software will then revert all highlighted changes.

Load

Selecting this option will bring up the Open Setup dialog. Selecting a setup and clicking **OK** will then load this setup to the interface, highlighting any changed items. You then have the option of making further modifications, saving the changes to the device with the **Save** button, or discarding these changes with the **Undo** button.

Copy

Selecting this option will bring up the New Setup dialog. Enter a unique name for the setup, and click **OK**. This will then save a copy of all the current displayed settings to the database.

4.3.2.2 Sections

Each section contains a series of categorised configuration options.

Production

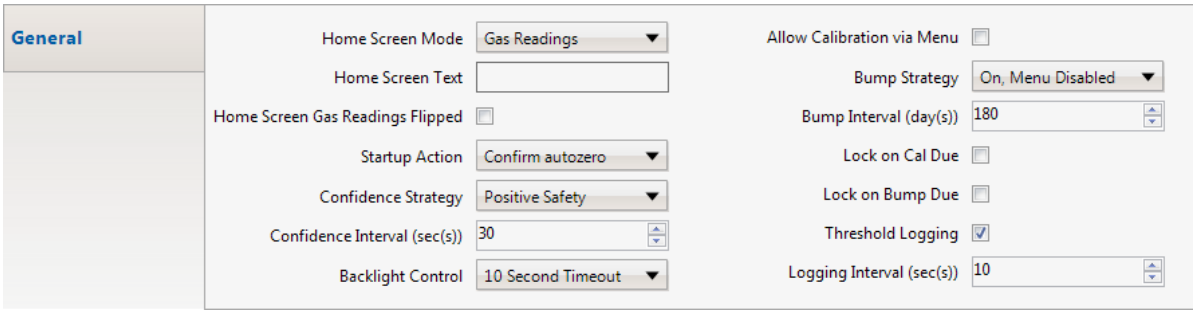
These options are for display purposes only and are not modifiable.

Serial Number
This is the serial number of the active device.

Date of Manufacture
This is the date of which the device was manufactured.

General

These options control the general operation of the device.



Home Screen Mode
You may select between **Gas Readings** and **User Details**.

The **Gas Readings** option will mean that the home screen will display current gas levels at all times.

The **User Details** option allows you to configure custom text to be displayed on the home screen, unless there is an alarm condition in which case the device will revert to displaying gas readings. Line one of the screen is configurable under **Home Screen Text**, and line two will display the **current user**.

Home Screen Text
This option is only applicable when **Home Screen Mode** is set to **User Details**. The text entered here will be displayed on the top line of the of the T4 display whilst on the home screen.

Home Screen Gas Readings Flipped
This option will cause the home screen to display gas readings and headers inverted, so a user with a device on their person may view gas readings. Note that this setting does not flip the screen under any other conditions.

Startup Action
The option allows modification of the autozero function. Available options are **Never Autozero**, **Confirm Autozero**, and **Always Autozero**.

- **Never Autozero** will cause the device to progress straight to the home screen when startup has completed.
- **Confirm Autozero** will prompt the user with a countdown when startup has completed, at which a button press will perform autozero.
- **Always Autozero** will prompt the user with the same countdown, but will perform autozero regardless of whether they press the button or not.

Confidence Strategy
This option allows modification of how the device reports that it is functioning. Available options are **Off**, **Sounder**, **LED**, **Sounder & LED**, **Positive Safety**, and **Positive Safety & Sounder**.

- **Off** will cause no audio visual confidence to be displayed.
- **Sounder** will cause the device will bleep at the configured **Confidence Interval**
- **LED** will cause the device to flash the blue LEDs at the configured **Confidence Interval**
- **Sounder & LED** will cause the device to bleep and flash the blue LEDs at the configured **Confidence Interval**
- **Positive Safety** will cause the device to flash either the green or red (depending upon state) Positive Safety LED once per second.
- **Positive Safety & Sounder** will cause the device to flash either the green or red (depending upon state) Positive Safety LED once per second, and bleep at the configured **Confidence Interval**

Confidence Interval
This option is the time in seconds at which the Sounder or LED confidence strategies will perform.

Backlight Control
This option controls how long the backlight will stay on following a button press. Available options are **Always Off**, **10 Second Timeout**, **30 Second Timeout**, and **Always On**.

- **Always Off** will keep the backlight always off, except under startup or alarm conditions.
- **10 second timeout** will keep the backlight on for 10 seconds following a button press.
- **30 second timeout** will keep the backlight on for 30 seconds following a button press.
- **Always On** will keep the backlight on indefinitely.

Allow Calibration via Menu
This option allows the user to control whether the Calibration option is available via the T4 menu.

Bump Strategy
This option allows the user to control how the device handles bump testing. Available options are **Off**, **On – Menu Disabled**, and **On – Menu Enabled**.

- **Off** will cause the device to ignore bump testing and never report bump due dates to the user. Attempting to bump test via the menu will report a Bump Disabled message.
- **On – Menu Disabled** will cause the device to report bump due faults, and report bump due dates to the user. Attempting to bump test via the menu will report a Bump Disabled message.
- **On – Menu Enabled** will cause the device to report bump due faults, and report bump due dates to the user. The bump testing option will be available via the device menu.

Bump testing may always be performed via Portables-Pro 2 or I-Test, regardless of what this option is set to.

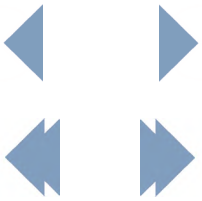
Bump Interval
This is the number of days which will be added to the current date to calculate the new bump due date following a successful bump test.

Lock on Cal Due
This option allows the user to configure a device to lock if any sensor calibration due date expires.

Lock on Bump Due
This option allows the user to configure a device to lock if any sensor bump due date expires.

Threshold Logging
This option allows the user to configure whether the device data log will suspend if there are no gas levels above threshold (see *Logging Threshold* on *page 29* for more information).

Logging Interval
This is the time in seconds between each gas data log reading.



Splash Screen

The user may configure their own custom splash screen to be displayed at startup. A screen mock-up is displayed as an indication of what the splash screen will look like.

Splash Enabled

This option enables or disables the custom splash screen.

Header Text

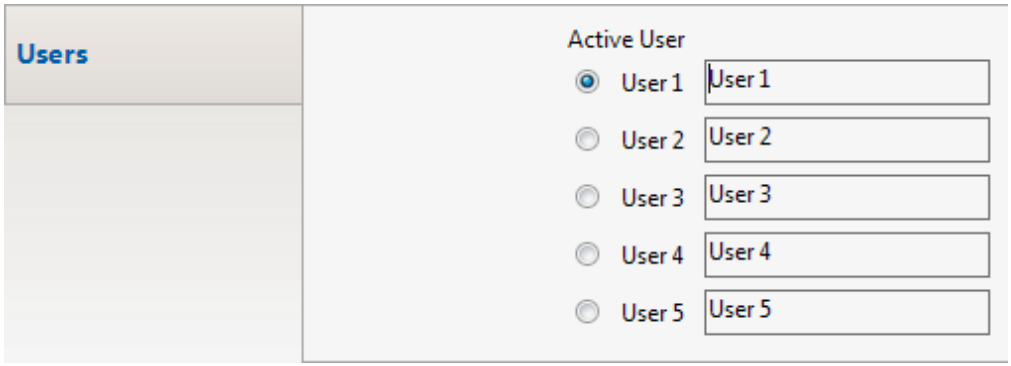
This option configures the text that will appear as the top line of the custom splash screen.

Info Text

This option configures the text that will appear as the bottom line of the custom splash screen.

Users

Up to five user names may be configured in the device.



Active User

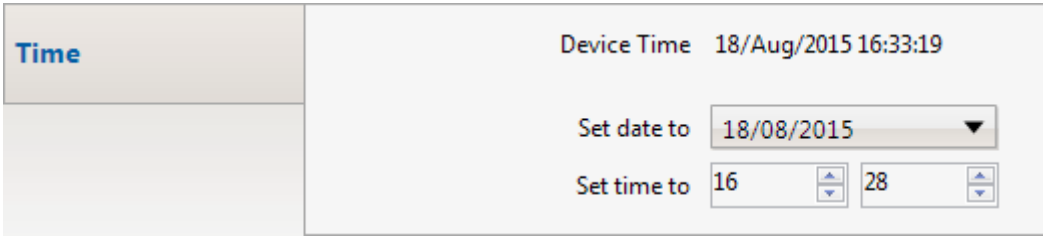
The active user may be configured by clicking the radio button by the side of the desired name.

User Names

Up to five user names may be entered here.

Time

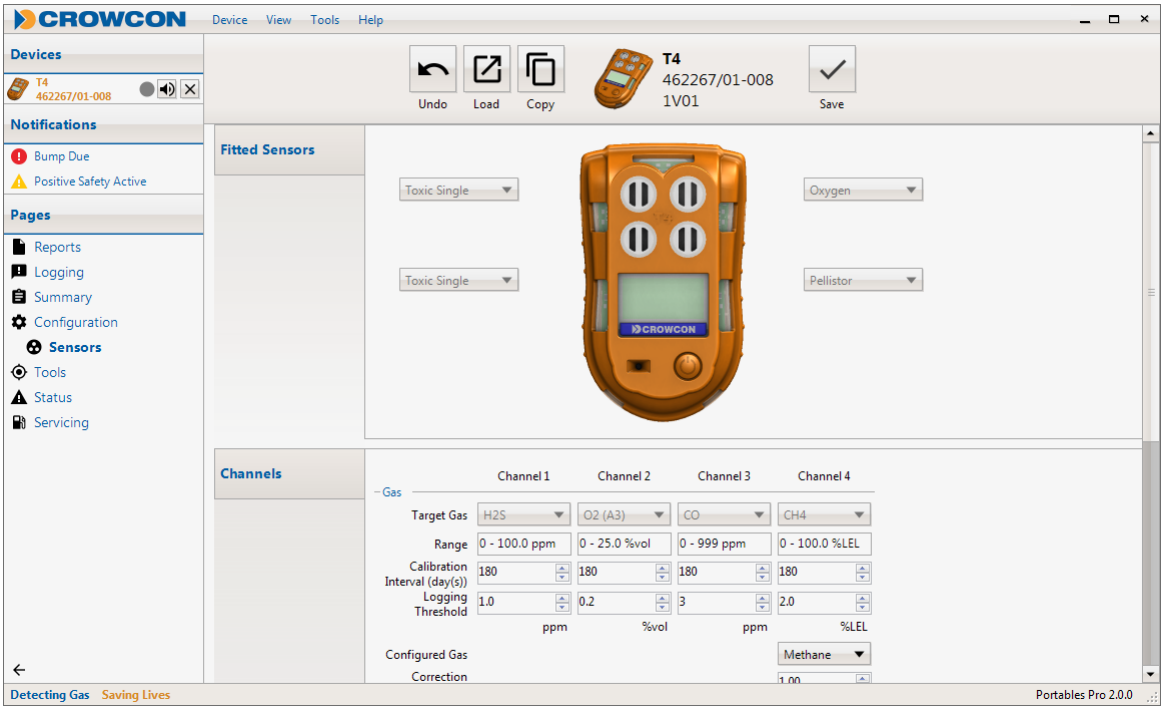
The device's current date and time is displayed here.

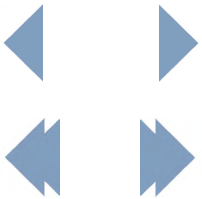


A custom date and time may be entered here if desired. Note that should the time be out of synchronisation with the local PC by more than 15 minutes, the software will prompt to correct this every time the device is connected to.

4.3.3 Sensors

The sensors page functions much in the same way as the Configuration page. See the *Controls* section on *page 23* for more information on the options at the top of the page.





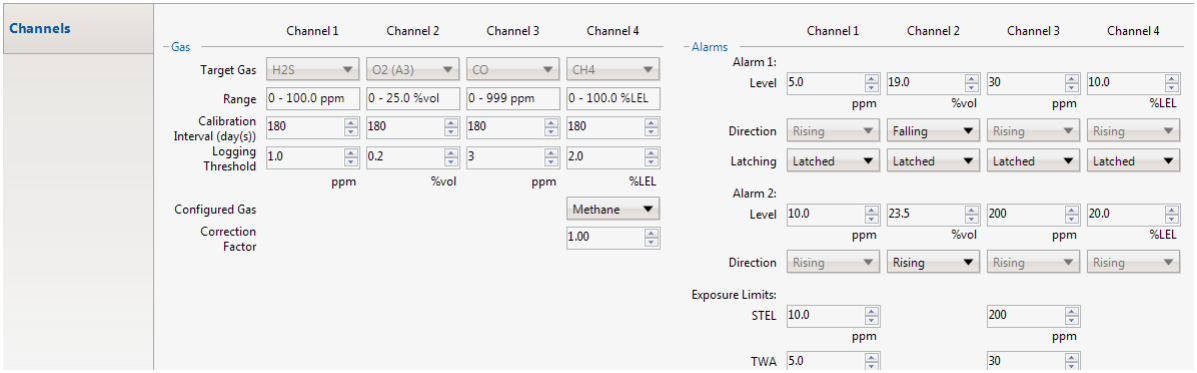
4.3.3.1 Fitted Sensors

This section is for informational purposes only. It shows the type of sensors which are fitted within each bay on the device. No options may be modified here.

If you wish to modify which sensors are fitted in the device, refer to the service manual.

4.3.3.2 Channels

This section contains all configurable settings for each channel, arranged in a grid for ease of use.



Target Gas

This option is for display purposes only. It displays the configured gas type for the appropriate channel.

Range

This option is for display purposes only. It displays the range of the appropriate channel.

Calibration Interval

This is the number of days which will be added to the current date to calculate the new calibration due date following a successful calibration for the appropriate channel.

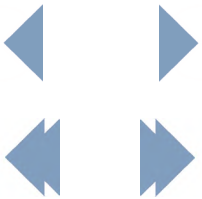
Logging Threshold

This option is this variation from clean air that will be required to trigger logging to begin if threshold logging is enabled.

For Oxygen, the value is in relation to 20.9%vol, so 0.5 for example will mean the threshold is either above 21.4%vol or below 20.4%vol.

Configured Gas

Flam sensors only. This option contains a list of gases which Crowcon support for use on the T4 flam sensor. Available options are Methane, Hydrogen, Ethane, Acetylene and Propane.



Correction Factor

Flam sensors only. This option is for informational purposes only and is not configurable.

Alarm 1 Level

This is the gas level at which Alarm 1 will be triggered for the appropriate sensor.

Alarm 1 Direction

This is whether gas level must be rising or falling to trigger alarm 1.

Only configurable for Oxygen.

Alarm 1 Latching

This is whether an alarm will automatically clear when the level drops below the alarm threshold. Options are Latching or Non-Latching.

Alarm 2 Level

This is the gas level at which Alarm 2 will be triggered for the appropriate sensor.

Alarm 2 Direction

This is whether gas level must be rising or falling to trigger alarm 2.

Only configurable for Oxygen.

STEL

This is the alarm level for the 15 minute STEL alarm. Refer to the user & operator manual for further details on the operation of STEL.

Only available for toxic sensors.

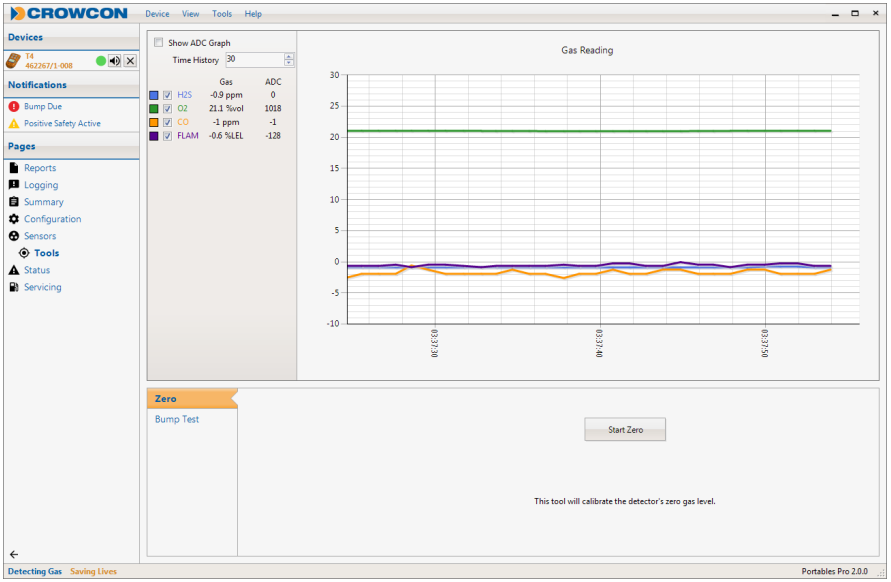
TWA

This is the alarm level for the 8 hour TWA alarm. Refer to the user & operator manual for further details on the operation of TWA.

Only available for toxic sensors.

4.3.4 Tools

The tools page allows viewing of current gas and ADC levels, and also allows the user to Zero or Bump Test the device.



4.3.4.1 Graph

The graph shows all current readings from the device. To the left of the graph, each channel reading can be seen under the Gas and ADC headings. The colour of a data series on the graph matches the colour of the corresponding channel name at the left.

Show ADC Graph

You may choose this option to display a second graph of ADC readings.

Time History

Modifying this option changes the amount of time (in seconds) which is displayed on each graph.

Series Enabled

The checkboxes to the left of each channel header may be clicked to show or hide the appropriate channel on the graphs.

Series Colours

The coloured box to the left of each channel header may be clicked to modify the colour of this data series.

4.3.4.2 Zero

This tool guides the user through the process of performing a Zero operation. See *Appendix A: Performing a Zero* on *page 43* for more details.

4.3.4.3 Bump Test

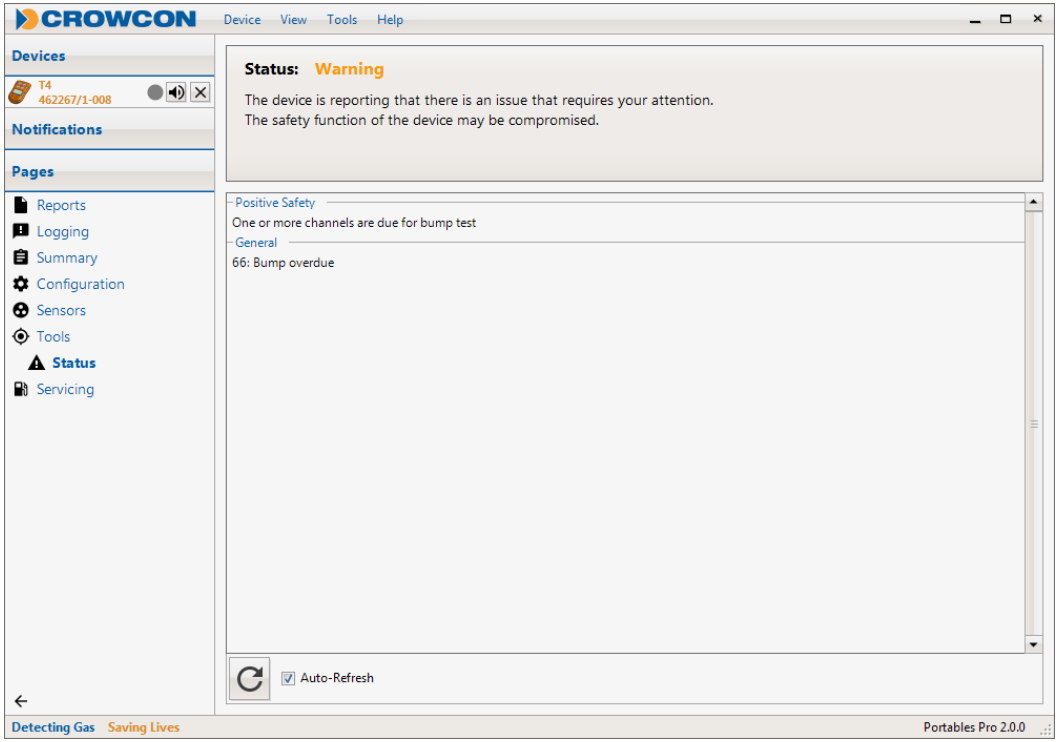
This tool guides the user through the process of performing a Bump Test. See *Appendix B: Performing a Bump Test* on *page 44* for more details.

4.3.5 Status

This page displays all active fault and Positive Safety messages which are present on the active device. This is useful for diagnosing what is causing the Positive Safety LED to be in the red state on your device, or for getting more information on a fault message.

The page will automatically refresh every 5 seconds, or alternatively you can disable this function and click the Refresh button manually.

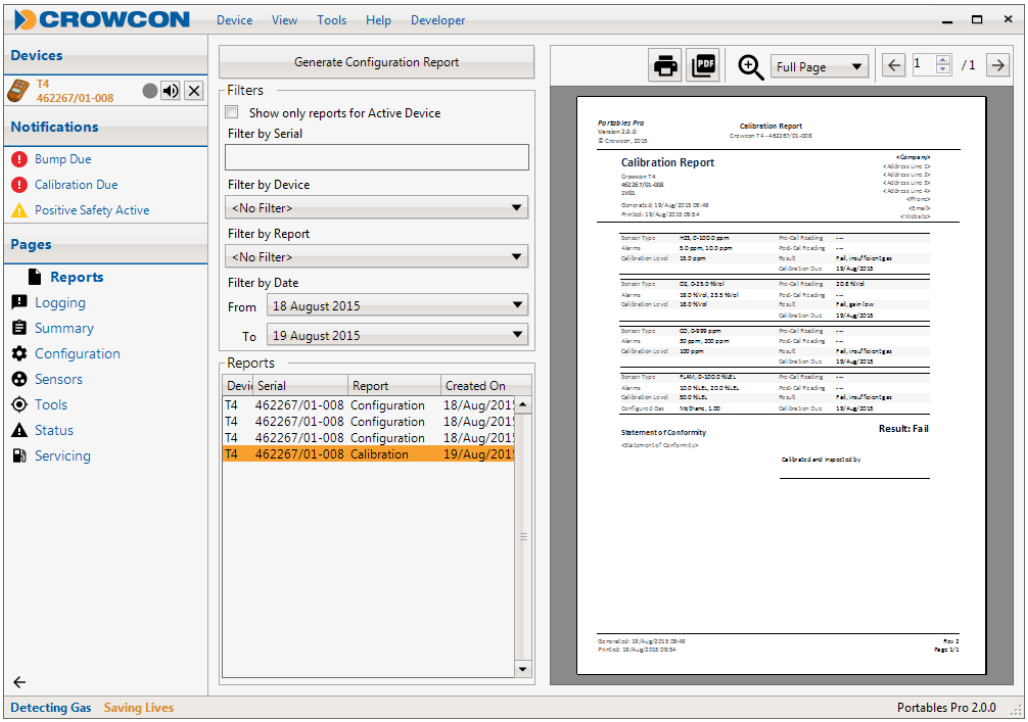
The example below shows the status page for a device which is due for a bump test.



4.3.6 Reports

The reports page allows viewing of stored bump test and calibration reports, and also allows the creation of configuration reports.

If you wish to modify your company details on a report, this is done on the Settings dialog.



4.3.6.1 Generate Configuration Report

This button will become available if the active device supports configuration reports. Clicking this button will then generate a report for the active device. The report will then appear in the reports list.

4.3.6.2 Show only reports for Active Device

This option will only be available if there is an active device. Checking this box will filter the reports list to only show reports pertaining to the active device.

4.3.6.3 Filter by Serial

Entering a serial number (or part of a serial number) in this box will filter the contents of the reports list. This text box will offer auto-complete options if the serial number you are typing appears in the reports list.

4.3.6.4 Filter by Device

This option allows filtering by device type. All device types present in the reports list will appear in this box.

4.3.6.5 Filter by Report

This option allows filtering by report type. All report types present in the reports list will appear in this box.

4.3.6.6 Filter by Date

This option allows filtering by date. Selecting a minimum and maximum date will only show reports which occur between the two selected dates.

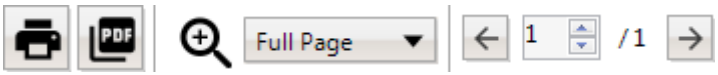
4.3.6.7 Reports List

The reports list shows all reports that meet the filter criteria. The headers of the list may be clicked to sort the reports ascending or descending using our category of choice.

Clicking on an entry in the reports list will bring up the report in the viewer to the right of the page.

4.3.6.8 Report Controls

When a report has been selected, a series of options along the top of the report viewer become available, including zoom and page view controls, and a print option.



Print

Clicking the **Print** button will bring up the print dialog with your default printer selected.

Export to PDF

Clicking the **Export to PDF** button will bring up a dialog requesting a file name and location to export to.

Zoom

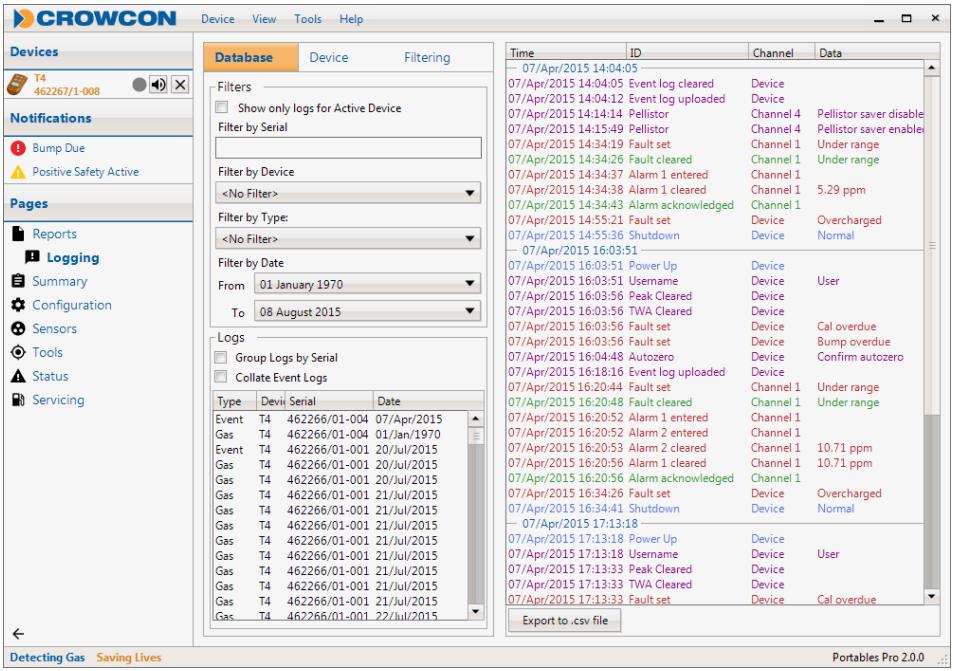
There are three categories of zoom to select from, **Full Page**, **Page Width**, and **Percentage**.
Full Page will ensure the entire page is visible within the report area.
Page Width will zoom in so that the whole page width is visible. You may then scroll downwards to view the rest of your report.
Percentage has several options to choose from for your preferred zoom level.

Page

You may use the forward → and back ← buttons to navigate between pages on the currently displayed report.

4.3.7 Logging

The logging page allows viewing of stored data and event logs, and also allows data and event logs to be downloaded from the active device.



4.3.7.1 Controls

Database

The database tab contains all stored log information.

Show only logs for Active Device

This option will only be available if there is an active device. Checking this box will filter the logs list to only show logs pertaining to the active device.

Filter by Serial

Entering a serial number (or part of a serial number) in this box will filter the contents of the logs list. This text box will offer auto-complete options if the serial number you are typing appears in the logs list.

Filter by Device

This option allows filtering by device type. All device types present in the logs list will appear in this box.

Filter by Type

This option allows filtering by log type. All log types present in the reports list will appear in this box.

Filter by Date
This option allows filtering by date. Selecting a minimum and maximum date will only show logs which occur between the two selected dates.

Group Logs by Serial
This option will group together logs for the same device under a common group header.

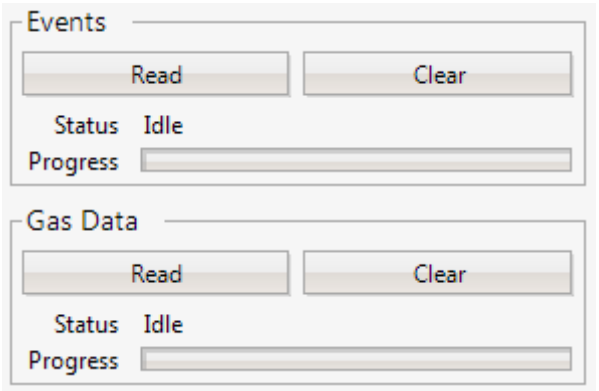
Collate Event Logs
This option will place all event logs under the same item in the list, so the entire event log can be viewed at once.

Logs List
The logs list shows all logs that meet our filter criteria. The headers of the list may be clicked to sort the logs ascending or descending using our category of choice.

Clicking on an entry in the logs list will bring up the log in the viewer to the right of the page.

Device

This option will only be available if there is an active device present.



Read Events
Clicking this button will start an event log download with the active device.

Once the download has begun, you will see the right hand side of the page filling with event logs on the fly as they are processed. See *Filtering* on *page 37* and *Event Logs* on *page 41* for more information.

You may Cancel this operation at any time.

This process may take some time.

Clear Events
Clicking this button will clear the event log on the active device. The software will show a confirmation dialog before proceeding with clearing.

Read Data
Clicking this button will start a data log download with the active device.

Once the download has begun, a new box will appear below the section with a list of log sections which have been downloaded. You may select these at any time to view them. See *Filtering* on *page 37* and *Event Logs* on *page 41* for more information.

You may Cancel this operation at any time.

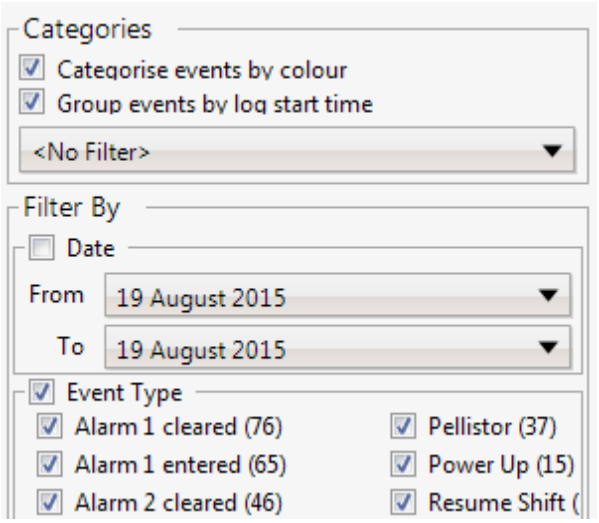
This process may take some time.

Clear Data
Clicking this button will clear the data log on the active device. The software will show a confirmation dialog before proceeding with clearing.

Filtering

Note that this page is context sensitive based upon the sort of logs which are being shown.

Event Filtering
When the displayed log is a list of event logs, the following options are available.



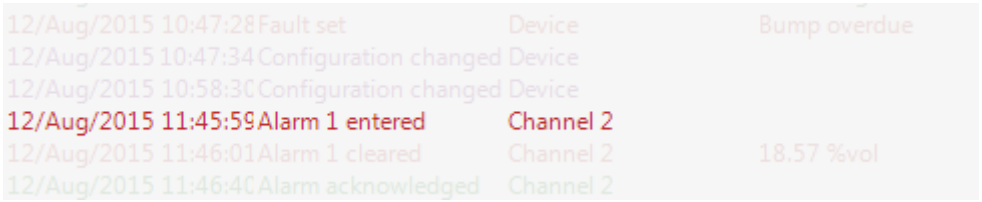
Categorise Events by Colour
Selecting this option will switch between having individual events coloured or not.

Categories are:

- Blue: Power up or shutdown events, e.g.:
  11/Jun/2015 09:03:27 Power Up Device
- Purple: Service events, e.g.:
  11/Jun/2015 09:04:16 Autozero Device Confirm autozero
- Green: Successful operations or Fault clearing or acknowledging, e.g.:
  11/Jun/2015 13:45:29 Fault acknowledged Device Battery low
- Red: Failed operations or Fault set, e.g.:
  11/Jun/2015 13:45:22 Fault set Device Battery low

Group Events by Log Start Time
If this option is selected, logs will have a separator line drawn between when the device has been powered up and shut down.

Highlight Filter
Selecting an option from the highlight filter will allow your selected log type to be more easily spotted, whilst still displaying all other log types. An example is shown below with “Alarm 1 Entered” as the selected event type.


12/Aug/2015 10:47:28 Fault set Device Bump overdue
12/Aug/2015 10:47:34 Configuration changed Device
12/Aug/2015 10:58:30 Configuration changed Device
12/Aug/2015 11:45:59 Alarm 1 entered Channel 2
12/Aug/2015 11:46:01 Alarm 1 cleared Channel 2 18.57 %vol
12/Aug/2015 11:46:40 Alarm acknowledged Channel 2

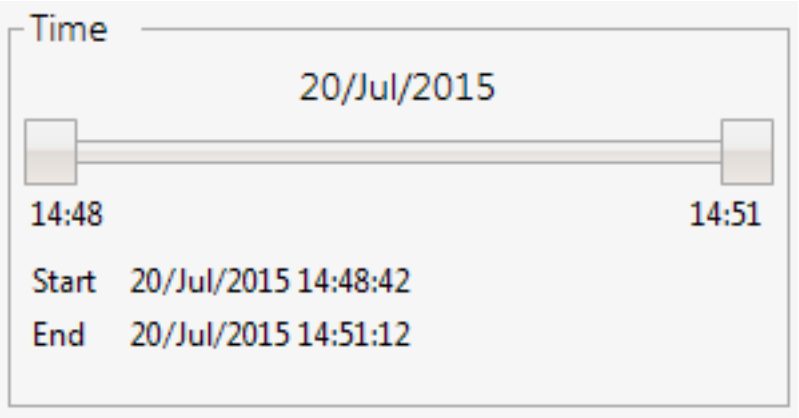
Filter by Date
A minimum and maximum date can be specified to filter out logs which don’t fall between the two values.

Filter by Event Type
Individual log types can be unticked from this list to remove them from the event list view. Clicking the Event Type box will tick or untick all event types.

Data Filtering
When the displayed log is a data log, the following options are available.

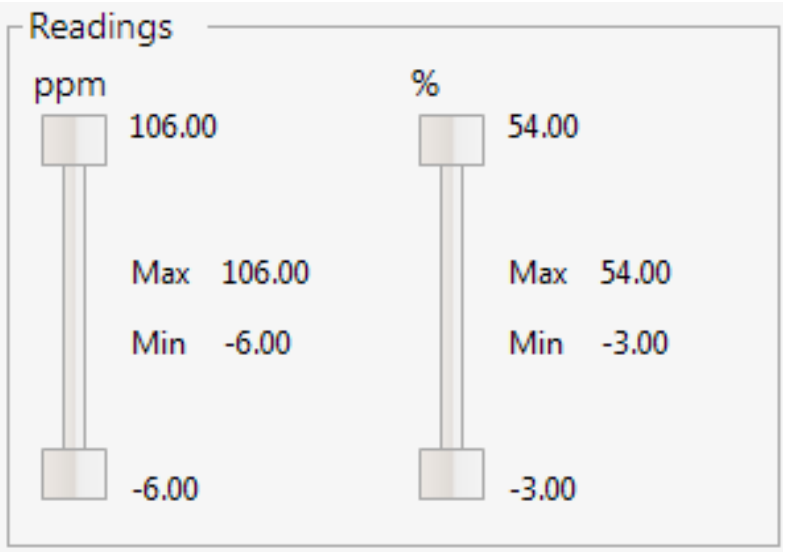
Time Filtering

This displays as a double-ended track bar. The left tracker moves the start time of the log, and the right tracker moves the end time of the log. The minimum visible section is approximately 10% of the range of the graph.



Reading Filtering

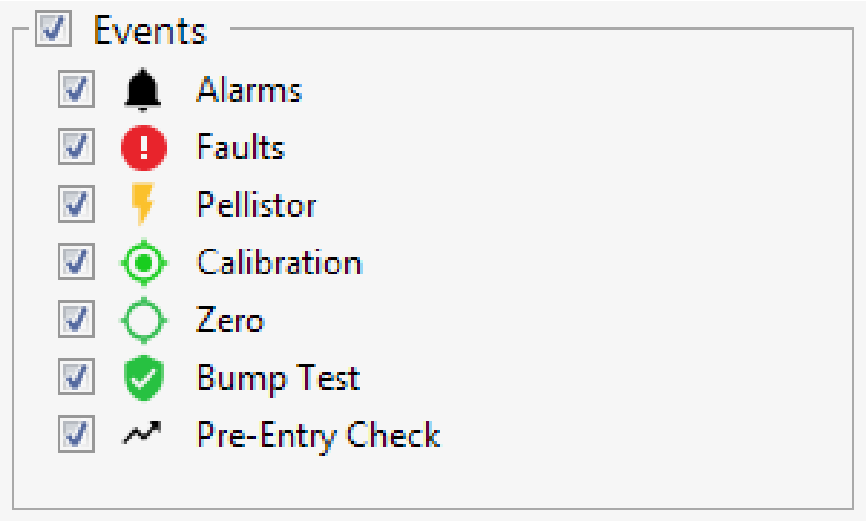
These filters are much like the time filtering option, only for either the left or right y-axis.



CROWCON

Events

If the event log has been downloaded and is available for this period of time, a selection of these (e.g. calibration passed) will be shown on the graph in the appropriate location. You can enable or disable these chart annotations using the checkboxes in this section.



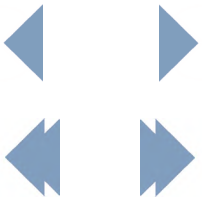
Alarm events may take the following forms:

- A red bell with appropriate alarm type symbol for alarm entered.
- A green bell with appropriate alarm type symbol for alarm cleared.
- A blue bell with a tick mark for alarms acknowledged.

Only channel specific faults are displayed, e.g. over range, under range.

Calibration, Zero and Bump Test events may take the following forms:

- A green symbol for passed.
- A red symbol for failed.



Event Logs

Event logs are displayed as a list of events in chronological order. You may scroll through these events using the scrollbar to the right, or using your mouse scroll wheel.

Events may be exported to csv format by using the Export option at the bottom of the page.

See *Filtering* on *page 37* for more information on manipulating this data.

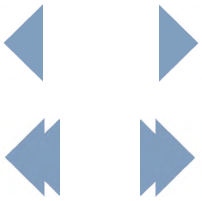
Data Logs

Data logs are displayed on a graph, based upon a log start and end time. Moving the mouse over the event log will display a vertical marker at the current mouse position, and the gas levels at this position will be shown on the floating legend at the top of the page.

Items in the legend may be clicked to enable or disable them on the graph. If you find that the legend is obscuring your view of the data, you may click the Right or Left arrow (as appropriate) to shift it to the other side of the page.

Data may be exported to csv format by using the Export option at the bottom of the page.

See *Filtering* on *page 37* for more information on manipulating this data.



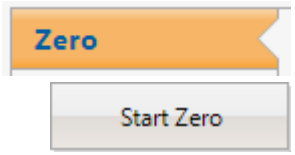
5. Servicing

For details on the servicing page, please refer to the Servicing manual.

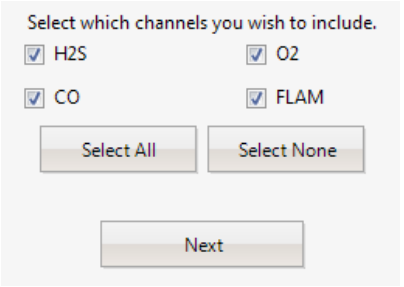
Appendix A: Performing a Zero

A zero may be performed on the Tools page. Once on the tools page, perform the following steps:

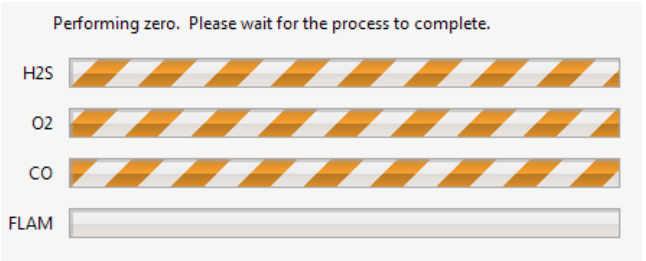
- Select the **Zero** option at the bottom of the page.



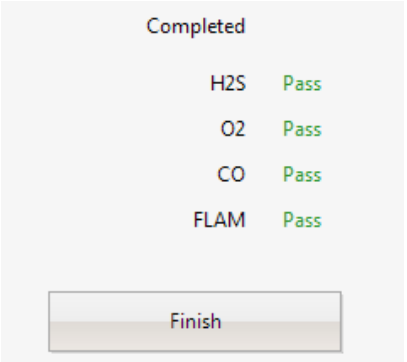
- Click **Start Zero**.
- Select which sensors you would like to zero.



- Ensure that the device is in clean air.
- Click **Next**.
- Wait for the zero process to complete.



- View the results.
- Click **Finish**.



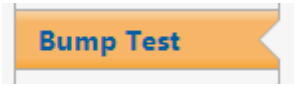
You may Mute the device at any time by clicking the Mute button.

Appendix B: Performing a Bump Test

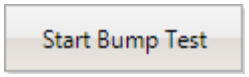
A Bump Test may be performed on the Tools page. Once on the tools page, perform the following steps:

Ensure you have the appropriate gas prepared for performing the test, and a calibration cap.

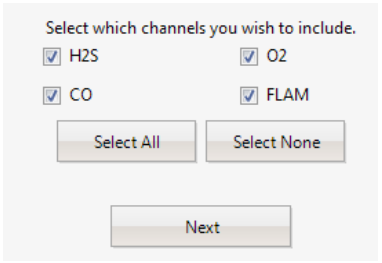
- Select the **Bump Test** option at the bottom of the page.



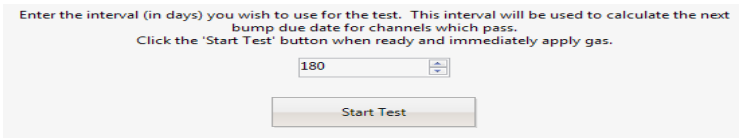
- Click **Start Bump Test**.



- Select which sensors you would like to bump test.

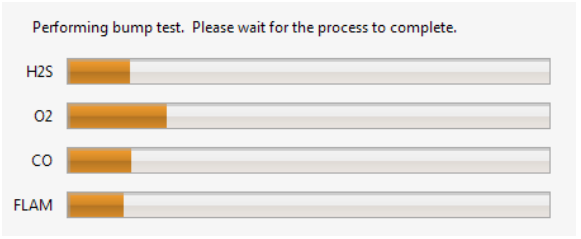


- Enter the interval in days that will be used to calculate new Bump Due dates.

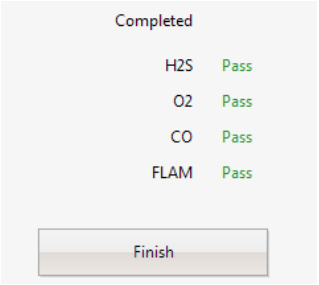

Enter the interval (in days) you wish to use for the test. This interval will be used to calculate the next bump due date for channels which pass.
Click the 'Start Test' button when ready and immediately apply gas.
180
Start Test

- Connect the calibration cap to the device.

- Click **Start Test**.
- Immediately apply gas to the device.
- Allow the test to complete.
- Turn off the gas.

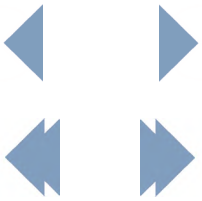


- View the results.
- Click **Finish**.
- Navigate to the Reports page to view your Bump Test report.



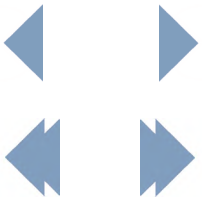
You may Mute the device at any time by clicking the Mute button.

CROWCON



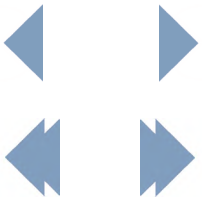
Appendix C: Performing a Calibration

Refer to the service manual for information on performing calibrations.



Appendix D: Replacing Sensors

Refer to the service manual for information on replacing sensors.

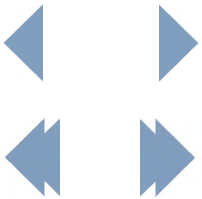


Appendix E: Fleet Management

Unlike Portables-Pro 1, there is no explicit Fleet Management option within Portables-Pro 2. This is because this function can be performed by other methods.

Users requiring a Fleet Management like function should perform the following steps:

1. Create a **New Setup**.
2. Navigate to the Configuration page and modify the **General** and **Splash Screen** sections to have your required settings.
3. Click **Save**.
4. Navigate to the **Sensors** page and modify the **Channels** section to have your required settings.
5. Click **Save**.
6. **Disconnect** from the setup, and **close** it.
7. Connect your T4 to be configured.
8. Navigate to the **Configuration** page (if required).
9. Click **Load**.
10. Select your setup and click **OK**.
11. Click **Save**.
12. Navigate to the **Sensors** page (if required).
13. Click **Load**.
14. Select your setup and click **OK**.
15. Click **Save**.
16. **Disconnect** from the T4, and **close** it.
17. Repeat steps 7-16 with your next device.



Software license agreement

IMPORTANT - READ CAREFULLY. THIS IS A LEGAL AGREEMENT BETWEEN YOU AND CROWCON DETECTION INSTRUMENTS FOR THE SOFTWARE PRODUCT YOU ARE INSTALLING WHICH INCLUDES COMPUTER SOFTWARE AND RELATED DOCUMENTATION. BY INSTALLING OR OTHERWISE USING THE SOFTWARE, YOU ACCEPT ALL THE TERMS AND CONDITIONS OF THIS AGREEMENT. IF YOU DO NOT AGREE TO THESE TERMS YOU MAY WITHIN THIRTY (30) DAYS OF PURCHASE RETURN THE UNUSED SOFTWARE PRODUCT TO THE LOCATION WHERE YOU OBTAINED IT FOR A REFUND.

Crowcon Detection Instruments Limited a Halma Group affiliate whose address is 172 Brook Drive, Milton Park, Abingdon, Oxfordshire, OX14 4SD, UK, hereby grants to you a non-exclusive license (a 'License') to use the software product 'Portables-Pro 2' (the 'Software') and the accompanying printed materials and User Manual (the 'Documentation') on the terms set forth below.

1. GRANT OF LICENSE.

This License grants you the following rights.

Software

Except as set forth below you may use the Software on any single computer (A single computer includes a 'Portable').

Transfer

You may transfer the Software and Documentation to a single recipient on a permanent basis provided you retain no copies of the Software or Documentation (including backup or archival copies) and the recipient agrees to the terms and conditions of this agreement. If the Software is an upgrade any transfer must include all prior versions of the Software and Documentation.

2. DESCRIPTION OF OTHER RIGHTS AND LIMITATIONS.

Reverse Engineering

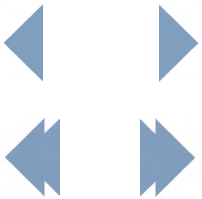
You may not modify, translate, reverse engineer, decompile, disassemble (except to the extent applicable laws specifically prohibit such restrictions) or create derivative works based on the Software, or any portion thereof.

Copying

You may not copy the Software or Documentation except as specifically provided by this Agreement.

Separation of Components

The Software is licensed as a single product. You may not separate the Software's component parts for use on more than one computer.



Upgrades

If the Software is an upgrade from another product, this upgrade License supersedes any previous License. You may use the Software only in conjunction with the upgraded product, or you must destroy the upgraded product.

Use of Crowcon's Name

You may not use Crowcon's or Crowcon's suppliers' name, logos, or trademarks in any manner including, without limitation, in your advertising or marketing materials, except as is necessary to affix the appropriate copyright notices as required herein.

3. TITLE.

Title, ownership rights, and intellectual property rights in and to the Software and Documentation shall remain in Crowcon and/or its suppliers. The Software and the Documentation is protected by the copyright laws of international copyright treaties.

4. TERMINATION.

The License is in effect until terminated. The License will terminate automatically if you fail to comply with the limitations described herein. On termination, you must destroy all copies of the Software and Documentation.

5. EXPORT CONTROLS.

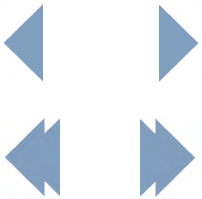
This Software is subject to the export control laws of the United Kingdom. You may not export or re-export the Software without the appropriate United Kingdom and foreign government licenses. You shall otherwise comply with all applicable export control laws and shall defend, indemnify and hold Company and all Company suppliers harmless from any claims arising out of your violation of such export control laws.

6. MISCELLANEOUS.

This Agreement represents the complete agreement concerning this license between the parties and supersedes all prior agreements and representations between them. This Agreement may be amended only in writing executed by both parties.

THE ACCEPTANCE OF ANY PURCHASE ORDER PLACED BY YOU IS EXPRESSLY MADE CONDITIONAL ON YOUR ASSENT TO THE TERMS SET FORTH HEREIN, AND NOT THOSE CONTAINED IN YOUR PURCHASE ORDER.

If any provision of this Agreement is held to be unenforceable for any reason, such provision shall be reformed only to the extent necessary to make it enforceable and the remainder of this Agreement shall nonetheless remain in full force and effect.



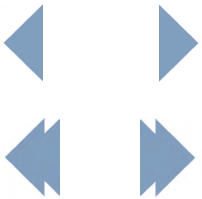
7. LIMITED WARRANTY.

Crowcon warrants that the media containing the Software, if provided by Crowcon, is free from defects in material and workmanship and will so remain for ninety (90) days from the date you acquired the Software. Crowcon's sole liability, and your sole remedy, for any breach of this warranty shall be, in Crowcon's sole discretion: (i) to replace your defective media; or (ii) if the above remedy is impracticable, to refund the License fee you paid for the Software. Replaced Software and Documentation shall be covered by this limited warranty for the period remaining under the warranty that covered the original Software, or if longer, for thirty (30) days after the date of shipment to you of the replaced Software. Only if you inform Crowcon of your problem with the Software during the applicable warranty period and provide evidence of the date you acquired the Software will Crowcon be obligated to honour this warranty. Crowcon will use reasonable commercial efforts to replace or refund pursuant to the foregoing warranty within thirty (30) days of being so notified.

THIS IS A LIMITED WARRANTY AND IT IS THE ONLY WARRANTY MADE BY CROWCON. CROWCON MAKES NO OTHER WARRANTY, REPRESENTATION, OR CONDITION, EXPRESS OR IMPLIED, AND EXPRESSLY DISCLAIMS THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND NONINFRINGEMENT OF THIRD PARTY RIGHTS. THE DURATION OF IMPLIED WARRANTIES OR CONDITIONS, INCLUDING WITHOUT LIMITATION, WARRANTIES OR CONDITIONS OF MERCHANTABILITY AND OF FITNESS FOR A PARTICULAR PURPOSE, IS LIMITED TO THE ABOVE LIMITED WARRANTY PERIOD; SOME JURISDICTIONS DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY OR CONDITION LASTS, SO LIMITATIONS MAY NOT APPLY TO YOU. NO CROWCON AGENT OR EMPLOYEE IS AUTHORIZED TO MAKE ANY MODIFICATIONS, EXTENSIONS, OR ADDITIONS TO THIS WARRANTY.

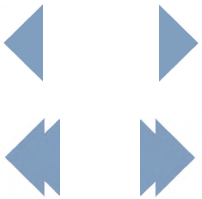
If any modifications are made to the Software by you during the warranty period; if the media is subjected to accident, abuse, or improper use; or if you violate the terms of this Agreement, then this warranty shall immediately be terminated. This warranty shall not apply if the Software is used on or in conjunction with hardware or software other than the unmodified version of hardware and software with which the Software was designed to be used as described in the Documentation.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY HAVE OTHER LEGAL RIGHTS THAT VARY BY JURISDICTION.



8. LIMITATION OF LIABILITY.

UNDER NO CIRCUMSTANCES AND UNDER NO LEGAL THEORY, TORT, CONTRACT, OR OTHERWISE, SHALL CROWCON OR ITS SUPPLIERS OR RESELLERS BE LIABLE TO YOU OR ANY OTHER PERSON FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY CHARACTER INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF GOODWILL, WORK STOPPAGE, COMPUTER FAILURE OR MALFUNCTION, OR ANY AND ALL OTHER COMMERCIAL DAMAGES OR LOSSES, OR FOR ANY DAMAGES IN EXCESS OF CROWCONS LIST PRICE FOR A LICENSE TO THE SOFTWARE AND DOCUMENTATION, EVEN IF CROWCON SHALL HAVE BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES, OR FOR ANY CLAIM BY ANY OTHER PARTY. THIS LIMITATION OF LIABILITY SHALL NOT APPLY TO LIABILITY FOR DEATH OR PERSONAL INJURY TO THE EXTENT APPLICABLE LAW PROHIBITS SUCH LIMITATION. FURTHERMORE, SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THIS LIMITATION AND EXCLUSION MAY NOT APPLY TO YOU.



Crowcon contacts

UK: Crowcon Detection Instruments Ltd, 172 Brook Drive, Milton Park, Abingdon, Oxfordshire OX14 4SD
Tel: +44 (0) 1235 557700
Fax: +44 (0) 1235 557749
Email: sales@crowcon.com

US: Crowcon Detection Instruments Ltd, 1455 Jamike Ave, Suite 100, Erlanger, KY 41018
Tel: +1 859 957 1039 or 1 800 527 6926
Fax: +1 859 957 1044
Email: salesusa@crowcon.com

NL: Crowcon Detection Instruments Ltd, Vlambloem 129, 3068JG, Rotterdam, Netherlands
Tel: +31 10 421 1232
Fax: +31 10 421 0542
Email: eu@crowcon.com

SG: Crowcon Detection Instruments Ltd, Block 194, Pandan Loop, #06-20 Pantech Industrial Complex, Singapore, 128383
Tel: +65 6745 2936
Fax: +65 6745 0467
Email: sales@crowcon.com.sg

CN: Crowcon Detection Instruments Ltd (Beijing), Unit 316, Area 1, Tower B, Chuangxin Building, 12 Hongda North Road, Beijing Economic & Technological Development Area, Beijing, China 100176
Tel: +86 10 6787 0335
Fax: +86 10 6787 4879
Email: saleschina@crowcon.com

www.crowcon.com